

What Is Claimed Is:

1 sub 1 > 1. A door assembly comprising:
2 a spacer having a first side and a second side;
3 a first sheet of fire-resistant insulating
4 material coupled to said first side;
5 a second sheet of fire-resistant insulating
6 material coupled to said second side;
7 a first outer skin coupled adjacent to said
8 first sheet opposite said spacer; and
9 a second outer skin coupled adjacent to said
10 second sheet opposite spacer.

1 2. A door assembly as recited in claim 1
2 wherein said first fire-resistant insulating material and
3 said second fire-resistant insulating material comprises
4 a gypsum-based material.

1 3. A door assembly as recited in claim 1
2 wherein said gypsum based material has a fibrous mat
3 therearound.

1 4. A door assembly as recited in claim 1
2 wherein said spacer is selected from the group of wood
3 spacers, gypsum pads, concrete, corrugated cardboard, and
4 a honeycomb material.

1 5. A door assembly as recited in claim 1
2 wherein said spacer is formed of a plurality of studs.

1 6. A door assembly as recited in claim 5
2 wherein said plurality of studs are composed of steel.

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1 7. A door assembly as recited in claim 1
2 wherein spacer, said first outer skin and said second
3 outer skin form a void therebetween.

1 8. A door assembly as recited in claim 7
2 wherein said void has fill material therein.

1 9. A door assembly comprising:
2 a first vertical edge;
3 a second vertical edge space apart from said
4 first vertical edge;
5 a top rail coupled to said first vertical edge
6 and said second vertical edge;
7 a bottom rail spaced apart from said top rail
8 coupled to said first vertical edge and said second
9 vertical edge;
10 a plurality of spaced-apart spacers disposed
11 between said first vertical edge, said second vertical
12 edge, said top rail and said bottom rail, said plurality
13 of spaced-apart spacers having a first side and a second
14 side;
15 a first sheet of fire-resistant insulating
16 material coupled to said first side;
17 a second sheet of fire-resistant insulating
18 material coupled to said second side;
19 a first outer skin coupled to said first sheet
20 opposite said plurality of spacers; and
21 a second outer skin coupled to said second
22 sheet opposite said plurality of spacers.

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1 10. A door assembly as recited in claim 9
2 wherein said first sheet of fire-resistant insulating
3 material is coupled to said first vertical edge, said
4 second vertical edge, said top rail and said bottom rail.

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1 11. A door assembly as recited in claim 9
2 wherein said first sheet of fire-resistant insulating
3 material is coupled to said first vertical edge, said
4 second vertical edge, said top rail and said bottom rail.

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1 12. A door assembly as recited in claim 9
2 wherein said first fire-resistant insulating material and
3 said second fire-resistant insulating material comprises
4 a gypsum-based material.

1 13. A door assembly as recited in claim 9
2 wherein said gypsum based material has a fibrous mat
3 therearound.

1 14. A door assembly s recited in claim 9
2 wherein said plurality of spaced-apart spacers are
3 selected from the group of wood spacers, gypsum pads,
4 concrete, corrugated cardboard, and a honeycomb material.

1 15. A door assembly as recited in claim 9
2 wherein said plurality of spaced-apart spacers are formed
3 of studs.

1 16. A door assembly as recited in claim 15
2 wherein said plurality of studs are composed of steel.

1 17. A door assembly as recited in claim 9
2 wherein said plurality of spaced-apart spacers, said
3 first outer skin and said second outer skin form a void
4 therebetween.

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18. A door assembly as recited in claim 16 wherein said void has fill material therein.

19. A door assembly as recited in claim 9 wherein said first sheet of fire-resistant insulating material, said second sheet of fire-resistant insulating material, and said plurality of spaced-apart spacers comprise a core having a predetermined thickness, said first vertical edge, said second vertical edge, said top rail and said bottom rail having said predetermined thickness.

20. A method of forming a door comprising:
coupling a plurality of spaced-apart spacers between a first sheet of fire-resistant insulating material and a second sheet of fire-resistant insulating material;

coupling a first outer skin to the first sheet of fire-resistant insulating material; and

coupling a second outer skin to the second sheet of fire-resistant insulating material.

21. A method as recited in claim 20 wherein coupling forms a void between said plurality of spaced-apart studs, said first sheet of fire-resistant insulating material and said second sheet of fire-resistant insulating material.

22. A method as recited in claim 20 further comprising filling said void with a fire-resistant insulating material.

1 23. A method as recited in claim 20 wherein
2 coupling a plurality of spaced-apart spacers comprises
3 coupling a plurality of spaced-apart studs between a
4 first sheet of fire-resistant insulating material and a
5 second sheet of fire-resistant insulating material.

1 24. A door assembly comprising:
2 a first vertical edge;
3 a second vertical edge space apart from said
4 first vertical edge;
5 a top rail coupled to said first vertical edge
6 and said second vertical edge;
7 a bottom rail spaced apart from said top rail
8 coupled to said first vertical edge and said second
9 vertical edge;
10 a plurality of spaced-apart spacers disposed
11 between said first vertical edge, said second vertical
12 edge, said top rail and said bottom rail, said plurality
13 of spaced-apart spacers having a first side and a second
14 side;
15 a first sheet of fire-resistant insulating
16 material coupled to said first side; and
17 a second sheet of fire-resistant insulating
18 material coupled to said second side.